David M. Barkan (CA 160825 / barkan@fr.com)
FISH & RICHARDSON P.C.
500 Arguello Street, Suite 400
Redwood City, CA 94063
Tel: (650) 839-5070 / Fax: (650) 839-5071

Robert Courtney (CA 248392 / courtney@fr.com)
FISH & RICHARDSON P.C.
60 South Sixth St., Suite 3200
Minneapolis, MN 55402
Tel: (612) 335-5070

A. Louis Dorny (CA 212054 / ldorny@tesla.com)
TESLA, INC.
3000 Hanover St.
Palo Alto, CA 94304
Tel: (510) 298-8516

Paul Margulies (*pro hac vice* / pmargulies@tesla.com)
TESLA, INC.
800 Connecticut Ave. NW
Washington, DC 20006
Tel: (202) 695-5388

Attorneys for Plaintiff, TESLA, INC.

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN JOSE DIVISION

TESLA, INC.,

Plaintiff,

v.

MATTHEWS INTERNATIONAL CORPORATION, a Pennsylvania corporation,

Defendant.

Case No. 5:24-cv-03615-EJD

CONFIDENTIAL DECLARATION OF DR. BONNE EGGLESTON IN SUPPORT OF TESLA'S OPPOSITION TO DEFENDANT'S MOTION TO COMPEL ARBITRATION

Date: October 3, 2024
Time: 9:00 a.m.
Place: Courtroom 4, 5th Floor
Judge: Hon. Edward J. Davila

[redacted]

[redacted]REDACTED VERSION OF DOCUMENT SOUGHT TO BE SEALED

I, Dr. Bonne Eggleston, hereby declare as follows:

1. I work for Tesla, Inc., where my title is Senior Director of Tesla 4680. "4680" is Tesla's groundbreaking lithium-ion battery design, which I was deeply involved in developing and which is manufactured using Tesla's proprietary "dry-electrode" process (i.e., "DBE"). I am a physicist and an engineer. I have personal knowledge of the matters stated in this declaration and would testify truthfully to them if called upon to do so. I submit this Declaration in support of Tesla's Opposition to Matthews International Corporation's Motion to Compel Arbitration.

2. I joined Tesla in 2017. My work since then has largely been focused on developing new battery technologies, including Tesla's valuable DBE technology. As a physicist and engineer, I have been deeply involved in every aspect of DBE development, including management of the Tesla team working on that technology. I am extremely proud of our team's accomplishments in DBE, and am particularly proud that, working together, the team at Tesla successfully developed DBE from a basic set of ideas in 2019 to a fully operational manufacturing technology in less than five years. To my knowledge, no other team anywhere in the world has matched that accomplishment. Tesla's DBE process is years ahead of any of its competitors, and that advantage is due to the hard work and long hours invested by myself and my team.

3. I am responsible for the technical aspects of Tesla's relationship with Matthews International Corp. and its German subsidiary Saueressig Engineering (collectively, "Matthews") as it relates to DBE, and have been since Matthews became a Tesla supplier in 2019. Having been present from the beginning of that relationship and having participated in hundreds of meetings and other interactions with Matthews, I strongly disagree with any assertion that Matthews is, or has been, a "pioneer" in the DBE space.

4. Tesla's DBE technology has its roots in research by a team in San Diego that was, at the time, part of a company called Maxwell Technologies, Inc. ("Maxwell"). The Maxwell team filed patent applications relating to DBE at least as far back as 2004. Tesla acquired Maxwell in 2019 and holds a core set of patents underpinning DBE technology. Tesla's acquisition included Maxwell's DBE engineering team joining Tesla. I was closely involved in the decision to acquire

all of Maxwell's assets, including its research and records relating to DBE. The acquisition included all of Maxwell's assets, including its research and records relating to DBE.

5. Matthews was a supplier of custom equipment to Maxwell prior to Tesla's acquisition. During that time, Maxwell was focused primarily on commercializing "dry-electrode" technology for a different type of energy storage device. Ultracapacitors, also referred to as supercapacitors, are energy storage devices that charge quickly. They have numerous drawbacks, they don't hold their charge for terribly long, and they have a low energy density. When Matthews began working with Maxwell more than a decade ago, Matthews had no substantive DBE experience. In my opinion, Matthews is not a company that performs primary research relating to battery technology. Attached as Exhibit 1 is a true and correct copy of a document obtained from Matthews' "Annual Reports" web site, https://www.matw.com/investors/sec-filings/annual-reports. It identifies itself as Matthews' Form 10-K Annual Report for 2023. From that report, I understand that Matthews' largest business segment by revenue is "Memorialization," which makes and sells caskets, memorials, and equipment for cremation and incineration. Ex. 1 at 3. "Industrial Technologies," which is currently the business segment relevant to Matthews' relationships with Tesla and Maxwell, has historically been Matthews' smallest segment by revenue. *Id.*

6. While I respect Matthews' abilities regarding custom machinery and solving problems relating to that machinery, I have never observed Matthews performing important research or development relating to DBE, nor any other battery technology. In my experience and observation, Matthews' expertise is in receiving designs and ideas from others and providing custom machinery to suit.

7. Maxwell worked with Matthews not because Matthews had any DBE experience (it did not) and not because Matthews had any unique insights regarding DBE technology (it did not) but because Matthews had experience making custom equipment, including custom equipment for non-DBE battery technologies. Notably, Maxwell worked with other suppliers in a similar fashion. Maxwell took design concepts developed and refined by Maxwell and brought these to Matthews seeking additional refinements.

8. When Maxwell became part of Tesla, Tesla inherited the historical relationship between Maxwell and Matthews. By that time, Matthews could (and did) claim experience relating "dry-electrode" technology, though not DBE. However, that experience was principally as a maker of custom machinery based on Maxwell's ideas and designs. It was clear that Maxwell was the "pioneer." Matthews was not.

9. Prior to acquiring Maxwell, Tesla was aware that Maxwell used Matthews as a custom equipment supplier. So as to discuss that work and evaluate whether Matthews might continue to supply custom equipment for Tesla, Matthews entered a Tesla NDA on April 1, 2019. On July 1, 2019, after Tesla completed the Maxwell acquisition, Matthews entered another Tesla NDA. Absent those NDAs, Tesla would not have discussed its confidential DBE technology or plans with Matthews, nor would Matthews have had an opportunity to work with Tesla in any respect. Based on those NDAs, Tesla began sharing valuable, confidential information with Matthews so as to evaluate the possibility of collaboration.

10. Tesla subsequently agreed to use Matthews as a custom equipment supplier for Tesla's DBE work. [redacted] Throughout 2019 and until the present day, Tesla was (and is) actively engaged in research and development for its confidential DBE process. As that research and development continued, [redacted]. I personally met and corresponded with Matthews employees relating to custom machinery hundreds of times. I personally spent many hundreds of hours working with Matthews employees and sharing ideas and designs from the Tesla DBE team so that Matthews could build custom equipment for us. The [redacted] on the Tesla DBE team dwarf the Matthews engineering team [redacted]. Our Tesla DBE team has devoted significant time and energies to acquire the necessary equipment from Matthews.

11. In no sense was Matthews a "pioneer" in this work. [redacted]

[redacted]. As I noted, Matthews had no real expertise or history of independent innovation relating to DBE. It had been a custom equipment supplier for Maxwell, and it was a custom equipment supplier for Tesla. Over time, of course, Matthews and its employees had the opportunity to learn significant details about Tesla's confidential DBE process, but that information was shared in strictest confidence, and Matthews had expressly agreed that such information would be used only to enable Matthews to provide the necessary custom equipment to Tesla. The Tesla DBE team would not have shared any confidential DBE details with Matthews whatsoever had it known that Matthews would subsequently sell equipment embodying Tesla's technology to others and file patents incorporating Tesla's confidential information.

12. I have reviewed the statements made by Gregory Babe to support his contention that Matthews "has nearly a decade of experience in developing dry electrode battery solutions." Babe Decl. ¶ 11. I strongly disagree that anything therein supports the conclusion that Matthews, outside of its relationships with Tesla, has meaningful DBE experience or, outside of its relationship with Maxwell, dry-electrode experience of any consequence. Mr. Babe bases that conclusion on a variety of activities that are ***not related to DBE.*** For example:

- Mr. Babe cites Saueressig's work in the late 1990s for Emtec and BASF. *Id.* ¶ 9. Mr. Babe does not state that this was DBE work, and I believe it was not. It may have related to legacy wet-coated battery electrodes; I doubt it related to DBE.
- Mr. Babe cites other work with European Batteries OY and with Evonik Litarion GmbH. *Id.* Again, he does not state this was DBE work, and I believe it was not.
- Mr. Babe next discusses work by Matthews in collaboration with the Fraunhofer Institute to produce electrodes for fuel cells. *Id.* ¶ 10. Any experience Matthews may have had regarding fuel cells is not DBE experience. While there are broad similarities in some respects, they are sharply different in others. Tesla's own experience with Matthews demonstrates that any experience in fuel cells Mathews may have had did not lead to success in DBE. [redacted]

[redacted] Even assuming that Matthews (with Fraunhofer) had used a "powder-to-film process," that does not make Matthews a DBE pioneer.

- Finally, Mr. Babe states that in 2016–2019 Matthews developed an "all-in-one concept." *Id.* ¶ 10. I note Mr. Babe's use of the word "concept." I am unaware of Matthews ever actually building such a tool, and I note that Mr. Babe does not contend the tool was ever actually built or otherwise advanced beyond the "concept" stage. [redacted] In my experience, a "concept" for custom equipment is a far cry from actual refinement into a usable tool, and as such nothing about Mr. Babe's statement suggests to me that Matthews is an actual pioneer for DBE.

13. I have also reviewed Matthews' Motion to Compel Arbitration (Dkt. 17-4) and I do not agree with several statements therein:

- For the reasons above, I do not agree with the Motion's statement that Matthews is a "well-known pioneer in dry-battery electrode manufacturing technology." *See* Dkt. 17-4 at 4. As I have stated, Matthews is not a "pioneer" for DBE. It is a custom equipment supplier to other companies. Some of those companies, like Tesla and Maxwell, have used Matthews as a supplier for custom equipment needed for DBE. That does not make Matthews a "pioneer."
- The Motion has no citation whatsoever for its statement that in 2012–2014, Matthews worked on "production lines for dry electrodes" relating to nickel batteries and ultracapacitors. *Id.* at 5. Mr. Babe's declaration includes no such statement. The Motion does not identify the customers, but its statement that the work was for "customers that were unaffiliated with Tesla" is curious because Maxwell, which Tesla later acquired, was certainly working on ultracapacitors around this time and had commissioned custom equipment from Matthews to support Maxwell's work.

- The Motion also has no citation for its statement that Matthews later designed calenders for "dry battery process lines" for other unnamed customers. I note that Mr. Babe's declaration includes no such statement.
- I disagree with the Motion's characterization that Tesla "approached" Matthews for its "engineering solutions" and "valuable intellectual property and global engineering talent." As the individual responsible for Tesla's interactions with Matthews, this is inaccurate, and I note that Mr. Babe's declaration includes no such statement. As I have said, Tesla inherited Maxwell's historical relationship with Matthews. Tesla decided to continue the relationship and to use Matthews as a custom equipment supplier—not a source of DBE innovation.
- I also disagree with the Motion's characterization of Matthews' work for Bosch and with Fraunhofer, for the reasons above.

I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct. Executed this 9th day of July, 2024 at Penang, Malaysia.

Dr. Bonne Eggleston